



# Pandemic Influenza Overview

Fairfax County Town Meeting  
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# Outline

- Difference between avian, pandemic and seasonal influenza
- Impact of an influenza pandemic
- Local preparedness efforts
- What you can do to prepare and protect yourself, family and community



# Seasonal Influenza – “flu”

- Respiratory infection
- Spread through contact with respiratory secretions from infected person who is coughing and/or sneezing
- Takes 1 – 5 days from exposure to onset of symptoms
  - Fever, chills, body aches, sore throat, cough, headache
- People have some immunity against circulating viruses from previous exposure or vaccination
- Vaccine and antiviral drugs available for prevention and treatment
- In the U.S peak flu activity usually occurs between December and March



# Pandemic Influenza

- Global disease outbreak
  1. Emergence of a new influenza A virus into the human population
  2. Causes serious illness because individuals have no existing immunity (protection)
  3. Adapts into a strain capable of spreading easily from person to person worldwide
- Currently there is no influenza pandemic virus anywhere in the world



# No one can predict

- Timing, nature and severity of the next pandemic
- What the new virus may be
- However, growing concern among health experts worldwide that a near term pandemic may be imminent
  - Widespread circulation of H5N1 viruses among avian populations and their potential for increased transmission to humans and other mammalian species



# H5N1 Avian Influenza (Bird flu)

- Highly contagious and lethal among poultry and causing outbreaks in a number of countries
- Human cases have occurred from direct contact with infected poultry or contaminated surfaces
- With about 50% fatality rate, most cases have occurred in previously healthy children and young adults in several countries in Asia, Europe, Egypt and Iraq
- Rare cases of human-to-human spread may have occurred, however, no evidence of spread beyond one person



# Influenza Viruses

- Of the three types – A, B and C – only Type A viruses cause pandemics
- **Influenza viruses are continuously changing**
  - Small, gradual changes (drift) occurs all the time, creating new strains and is the reason for updating flu vaccine each year
  - An abrupt, major change (shift) occurs occasionally and results in new virus (pandemic potential)
    - Direct animal to human spread
    - Mixing of human and animal influenza virus genes as a result of simultaneous infection of human and animal influenza A viruses in either animals and humans



# History of influenza pandemics

- Three influenza pandemics in the 20<sup>th</sup> century
  - 1918 “Spanish flu” (H1N1)
    - Avian origin
    - 40 million deaths
  - 1957 “Asian flu” (H2N2)
    - Human and avian influenza genes
    - 2 million deaths
  - 1968 “Hong Kong flu” (H3N2)
    - Human and avian influenza genes
    - 700,000 deaths
- Spread in two or three waves over 12 -18 mo.





# What to expect during a pandemic

- 2 or 3 waves of disease outbreak over 12 -18 mo.
- Possibly as many as 35% of the population affected with large numbers of deaths
- Health systems may be overwhelmed
  - Difficult choices will have to be made regarding prioritization of limited resources
- Vaccine will not be available for 6-8 months and shortages in the availability of antiviral drugs
- Possible disruptions in usual services
  - Travel restrictions, closings of schools and businesses, cancellations of large public gatherings



# Federal preparedness

- Efforts to improve flu vaccine manufacturing process and produce vaccine effective against H5N1 underway
- CDC working with WHO and other nations to enhance human and animal disease monitoring, laboratory capacity and testing; conduct investigations; and provide rapid response training and health education in affected areas
- CDC working with other federal and state partners on antiviral stockpile issues to increase supplies and ensure most efficient use during a pandemic
- CDC assisting states with their planning efforts



# Local response planning

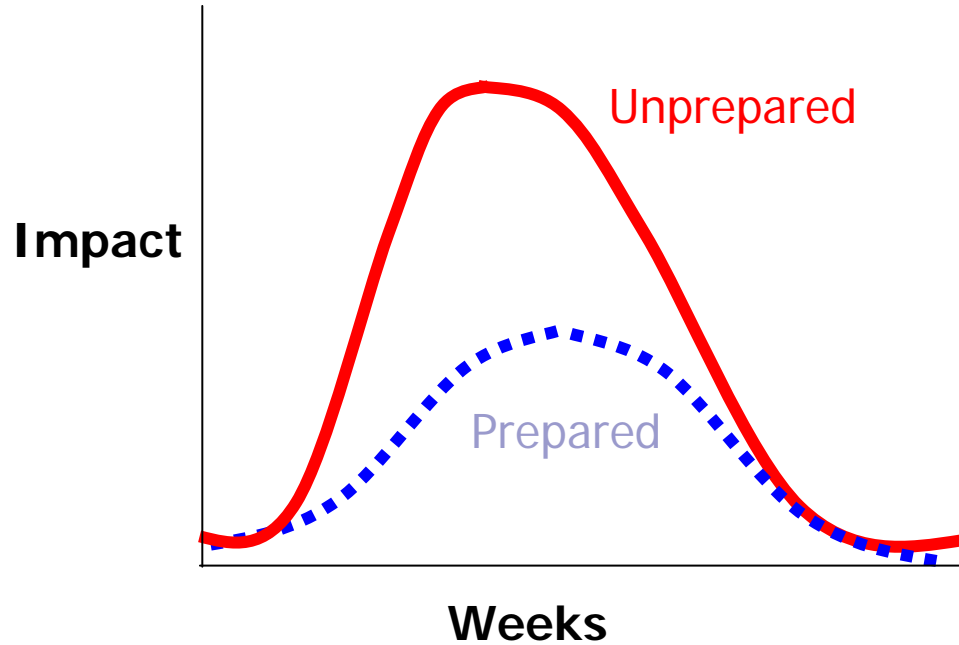
- Embedded In County All Hazards Emergency Plans
- County Executive and Deputies are providing leadership to multi-disciplinary workgroups in accordance with state, regional and federal planning efforts
  - Public Health issues such as health care needs; surveillance; community disease control and prevention; legal issues; communications and notifications; vaccine distribution.
  - Critical Infrastructure and Resource Management
- Goal is to rapidly detect and contain outbreaks, maintain essential health care and community services as best as possible during a pandemic




# What you can do

- To protect yourself, your family and community
  - Stay informed
  - Stop germs from spreading
    - Cover your cough and sneeze
    - Wash your hands often
    - Stay home when you are sick
  - Get your flu shot each year
  - Check the CDC website for travel advisories if you plan to travel.
  - Have a good home disaster preparedness plan and assist your neighbors who need help make a plan.

# Impact of Planning



Adapted from HHS



No government can prevent an influenza pandemic, but as a community we can decrease its negative impact by **working together to comply with the difficult choices** we will need to make in our attempt to slow its spread and buy time for vaccine development and distribution.